

(12) United States Patent

Tayman

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(54) STOP-ROTOR ROTARY WING AIRCRAFT

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- (52) **U.S. Cl.** **244/7 C**; 244/6
- (58) Field of Classification Search 244/6, 7 A, 244/7 B, 7 C, 7 R, 12.4, 17.11, 17.19, 17.21, 244/45 R, 48

See application file for complete search history.

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(57) ABSTRACT

Systems and methods for transitioning an aircraft between helicopter and fixed wing flight modes are provided. In one embodiment, an aircraft comprises a plurality of wings each having a spar and a flap; a flap actuator configured to move the flap with respect to the spar; and a center section rotatably coupled to each spar. The center section includes at least one spar actuator configured to rotate at least one of the wings about a rotational axis of the spar when the aircraft transitions between helicopter and fixed wing flight modes.

9 Claims, 7 Drawing Sheets

